

REMARKS

By this amendment, claim 1 has been amended to more clearly and distinctly claim the invention. Accordingly, claims 1-53 are currently under examination. No new matter is entered into the case by the amendment.

Rejection under 35 U.S.C. 102(b) and 35 U.S.C 103(a)

In the office action, claims 1-13, 18-20, 24, 28, 35, 38 and 41-51 were rejected under 35 U.S.C. 102(b) for allegedly being anticipated by U.S. Patent No. 6,130,098 to Handique et al. Claims 14-17, 21-23, 25-34, 36-37, 39-40, and 52-53 were rejected under 35 U.S.C. 103(a) for allegedly being obvious over U.S. Patent No. 6,130,098 to Handique et al.

Applicants have amended claim 1 to now require that the manipulator consist essentially of a surface and thermal elements alone causes the fluid to move on the surface in a desired path. No micro-channels for controlled movement of the fluid are included in the manipulator. Support for the amendment to claim 1 can be found in the specification as originally filed, see *inter alia*, page 1, lines 28-31 and the figures 1-4 and 30-33. No new matter is entered into the case by the amendment.

The apparatus taught and disclosed in Handique et al. comprises an enclosed channel. The enclosed channel contains side walls which confine or limit the movement of the fluid to a predefined path. Thus, the manipulator of Handique et al. **is not** devoid of micro-channels as required by claim 1 of the present application. There is no teaching, suggestion, or disclosure in Handique et al. of a surface for movement of fluid on the surface in the absence of the micro-channels. In other words, applicants' invention is complete and operational without micro-channels, whereas the Handique et al. apparatus requires micro-channels for operability.

Since the Handique et al. reference fails to teach suggest or disclose, the invention of claim 1 as amended that provides a microfluidic manipulator that includes a surface

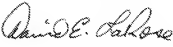
and thermal elements wherein the manipulator is devoid of micro-channels, claim 1 is not anticipated or obvious over Handique et al.

Claims 2-53 depend from claim 1 and provide additional important limitations. Claims 2-53 are patentable over Handique et al. for the same reasons set forth above that claim 1 is patentable over this reference. Accordingly, applicants respectfully request that the rejection of the claims under 35 U.S.C. 102(b) and 103(a) over Handique et al. be reconsidered and withdrawn.

In view of the above amendments and remarks, allowance of the pending claims is earnestly requested. If the examiner has any questions or concerns regarding this amendment, he is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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